

FOREST INSECT AND DISEASE MANAGEMENT UNIT
U.S. FOREST SERVICE
DORAVILLE, GEORGIA

REPORT OF AERIAL DETECTION SURVEY
COOPERATIVE OAK SAWFLY AERIAL SURVEY

LAND OWNERSHIP OR SURVEY AREA: Southeastern Kentucky including
the Berea, London, Somerset,
Stearns, and Redbird Ranger
Districts of the Daniel Boone
National Forest

STATE: Kentucky

COUNTIES: Bell, Clay, Estill, Harbin, Jackson, Knox, Laurel,
Lee, Leslie, McCreary, Owsley, Powell, Pulaski,
Rockcastle, Whitley, Wolfe

TOTAL AREA WITHIN SURVEY BOUNDARY: 3,704,400 acres

NATIONAL FOREST OWNERSHIP WITHIN SURVEY BOUNDARY: 494,600 acres

DATES SURVEYED: 9/6-9/77
9/12-15/77

PERCENT COVERAGE: 25%

AIRCRAFT: Cessna 182

CREW: C. W. Dull
W. A. Carothers
P. A. Mistretta

SURVEY OBJECTIVES: The purpose of the aerial detection
survey conducted in cooperation with the Kentucky Division
of Forestry, was to delineate areas defoliated by the oak
sawfly (*Calibroa sp.*). The U.S. Forest Service, Aerial
Survey Team was responsible for aerial detection in 16
southeastern counties while the Kentucky Division of Forestry
conducted the aerial survey in 18 northeastern counties
(Figure 1). Other insect and disease caused damage
observed from the air was to be recorded, if present.
Results contained in this report pertain only to the 16
southeastern counties surveyed by the Aerial Survey Team,
U.S. Forest Service.

SURVEY RESULTS

Defoliation within the survey area was very light or
not detectable from the air. Widely scattered hardwoods
displaying light defoliation in the upper crown were
observed throughout the survey area indicating that a
small, widespread population still exists. Light defoliation
was concentrated in one area north of and along the perimeter
of Laurel River Lake in the London Ranger District in Laurel
County (Figure 2).

Ground surveys of the area around Laurel River Lake confirmed the presence of light defoliation caused by the oak sawfly. Typical foliar damage, with only portions of the upper crown defoliated were observed (Figure 3). Skeletonized leaves, characteristic damage caused by the oak sawfly, were evident upon closer examination (Figure 4).

No other forest insect damage was observed. Pine bark beetle activity was not detected except for large areas of standing dead pines on the Stearns Ranger District indicating old-inactive pine trees killed by the southern pine beetle.

CONCLUSIONS

The results of this survey indicate a reduction in the size of the area affected and lower intensity of defoliation caused by the oak sawfly as compared to the previous two year's survey results. Since this insect is a late season defoliator its effect on the trees is minimal.

However, Ranger District personnel, and State and Private land managers within the area surveyed are encouraged to continue field surveillance during the summer of 1978.

For any additional information, Contact

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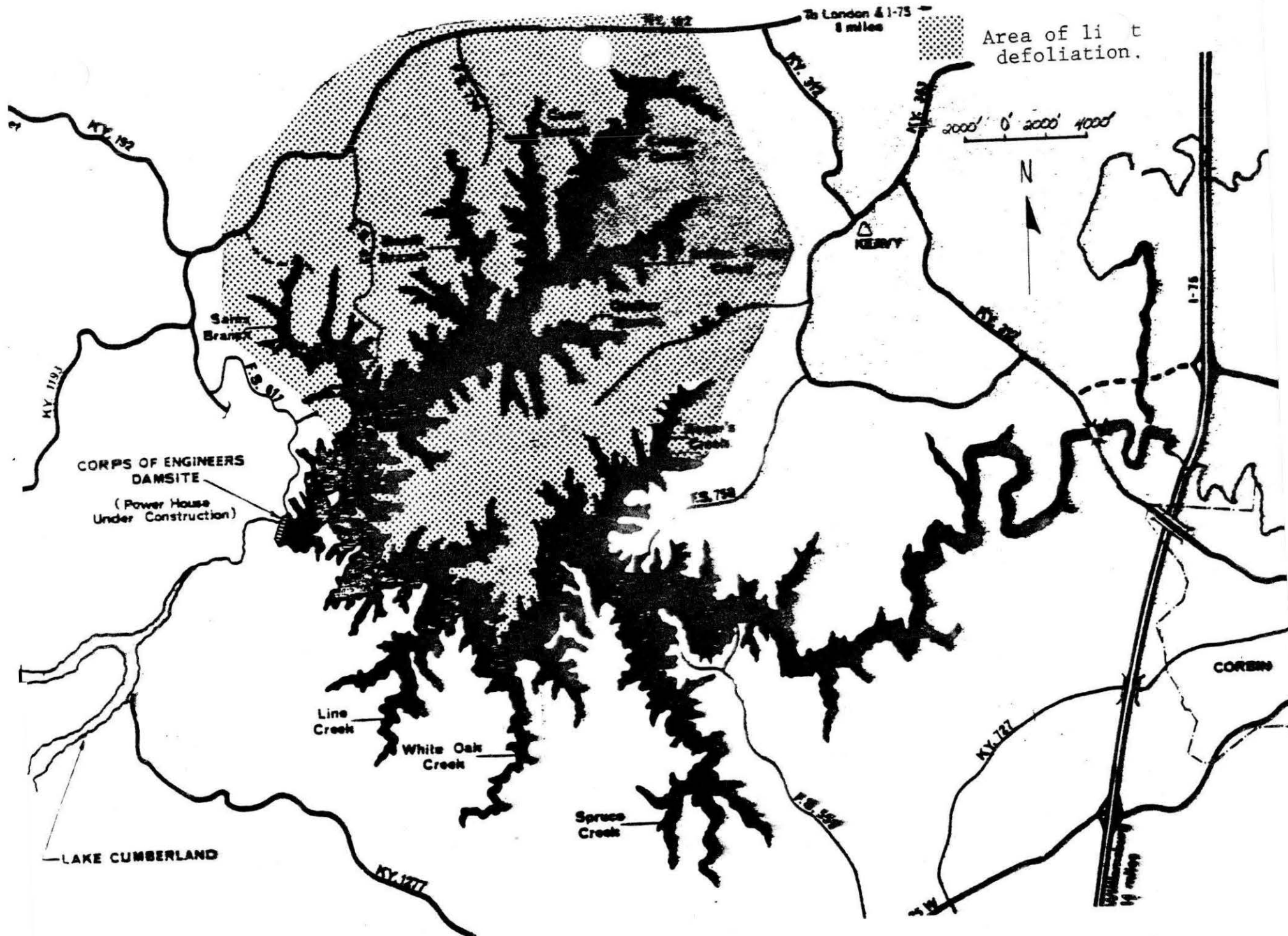


Fig. 2. Laurel River Lake.